REMARKS

Applicants concurrently file herewith an Excess Claim Fee Payment Letter, and corresponding excess claim fee, for four (4) excess independent claims.

Claims 1-10 and 14-19 are all the claims presently pending in the application. Claims 1, 8, 9, 14 and 15 have been amended to more particularly define the claimed invention.

Entry of this Amendment is believed proper since no new issues are being presented to the Examiner that would require further search and/or consideration. That is, Applicants have merely incorporated the subject matter of claim 13 into independent claim 1.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Applicants gratefully acknowledge the Examiner's indication that claims 3 and 4 are allowed and that claims 8-10, 14 and 15 would be allowable if rewritten in independent form. Therefore, Applicants have rewritten allowable claims 8, 9, 14 and 15 into independent form. However, Applicants respectfully submit that all of claims 1-19 are allowable.

Claims 1, 5, 7, 11-13, 16, 17 and 19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Etsuro (Japanese Patent No. JP 2001-108025). Claim 2 stands

rejected under 35 U.S.C. § 103(a) as being unpatentable over Etsuro. Claims 1, 5-7, 11-13 and 16-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Murakami et al. (U.S. Patent Application Publication No. 2001/0040067; hereinafter "Murakami") in view of Eda et al. (U.S. Patent Application Publication No. 2004/0245040; "hereinafter "Eda").

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

The claimed invention of exemplary claim 1 provides a curved leaf spring fitted along an outer peripheral surface of the bearing and an inner surface of the support portion, wherein the curved leaf spring contacts the outer peripheral surface of the bearing and the curved leaf spring contacts the inner surface of the support portion (e.g., see Application at page 16, line 5 and Figure 4). This feature is important for eliminating a gap between the bearing and the curved leaf spring as well as between the curved leaf spring and the support member, which limits the movement of the worm (see Application at page 16, lines 5-11).

II. THE PRIOR ART REFERENCES

A. The Etsuro Reference

The Examiner alleges that Etsuro teaches the claimed invention of claims 1, 5, 7, 11-13, 16, 17 and 19. Furthermore, the Examiner alleges that the claimed invention of claim 2 would have been obvious in view of Etsuro. Applicants respectfully submit,

however, that Etsuro does not teach or suggest each and every feature of the claimed invention.

That is, Etsuro does not teach or suggest "*wherein said curved leaf spring contacts said outer peripheral surface of said bearing and substantially a whole intermediate portion of said curved leaf spring except opposite ends portions of said curved leaf spring contacts said inner surface of said support portion*" as recited in claim 1.

The Examiner attempts to rely on Figure 5 of Etsuro to support his allegation. The Examiner, however, is clearly incorrect.

That is, nowhere in this Figure (nor anywhere else for that matter) does Etsuro teach or suggest that the curved leaf spring contacts the outer peripheral surface of the bearing and substantially a whole intermediate portion of the curved leaf spring except opposite ends portions of the curved leaf spring contacts the inner surface of the support portion. Indeed, the Examiner does not even allege that Etsuro teaches or suggests this feature. The Examiner merely alleges that Etsuro teaches a curved leaf spring that is longer than the outer periphery of the bearing.

Indeed, Etsuro merely teaches an electric steering device provided with a worm (71) and a worm wheel (72) engaged with the worm (71). The worm (71) can be displaced in the direction of the worm wheel (72) and in the axial direction of the worm wheel (72). The worm (71) is provided with a leaf spring (31) and a coil spring, which eliminate backlash in the worm (see Etsuro at Abstract).

As shown in Figure 5 of Etsuro, the leaf spring (31) is not fitted along the outer periphery of the bearing (17) and in contact with the outer peripheral surface of the

bearing and the inner surface of the support portion. Indeed, the leaf spring (31) merely contacts the bearing (17) at two discrete points. Additionally, only portions of the leaf spring (31) are fitted along the inner surface of the support portion (81). This results in large gaps between the curved leaf spring (31) and the bearing (17) and the support member (81) (see Etsuro at Figure 5).

Specifically, the leaf spring (31) of Etsuro includes pressing portions (31b) for pressing a bearing (17). The pressing portions do not contact an inner surface (81) of a support portion. Thus, the above claim limitation is not taught or suggested by Etsuro.

In contrast, the claimed invention of exemplary claim 1 (e.g., as depicted in Figure 4) provides a curved leaf spring (12) that may be fitted along and in contact with the outer peripheral surface of the rolling bearing (8) and substantially a whole intermediate portion of the curved leaf spring except opposite ends portions of the curved leaf spring (12) contact the inner side (74b) of the support portion (74). This allows a gap between the curved leaf spring (12) and the inner side (74b) of the support portion (74), and a gap between the curved leaf spring (12) and the rolling bearing (8) to be eliminated. Thus, the movement of the worm (3) in a direction intersecting the directions of the rotation-axis distance (H) is limited (see Application at page 16, lines 5-11).

Furthermore, as compared with conventional devices, the structure around the worm gear (3) may be made compact. Therefore, the overall size of the motor-driven power steering apparatus may be reduced (see Application at page 15, lines 17-21). This feature is not taught or suggested by Etsuro. Therefore, the advantages provided by the claimed invention of exemplary claim 1 are not realized by Etsuro.

Therefore, Applicants submit that Etsuro does not teach or suggest (nor make obvious) each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

B. The Murakami Reference

Applicants submit that Murakami does not teach or suggest "*wherein said curved leaf spring contacts said outer peripheral surface of said bearing and substantially a whole intermediate portion of said curved leaf spring except opposite ends portions of said curved leaf spring contacts said inner surface of said support portion*" as recited in claim 1.

Murakami merely teaches a bearing (10) mounted on a support (81) by an elastic member (20) (see Murakami at Figure 5). Murakami, however, does not even mention a curved leaf spring, let alone teach or suggest a curved leaf spring being fitted along an outer peripheral surface of the bearing and an inner surface of the support portion. Indeed, the Examiner does not even allege that Murakami teaches or suggest this feature.

C. The Eda Reference

The Examiner alleges that Murakami would have been combined with Eda to teach the claimed invention of claims 1, 5-7, 11-13 and 16-19. Applicants submit, however, that these references would not have been combined and that , even if combined, the alleged combination would not teach or suggest each and every feature of the claimed invention.

In Applicants' Amendment filed on July 26, 2005, Applicants provided a detailed argument pointing out the Examiner's lack of motivation for the alleged combination of Murakami and Eda (see Amendment filed July 26, 2005 at pages 9-10). However, in the Office Action, the Examiner has failed to even mention, let alone respond to, Applicants' arguments. Indeed, the Examiner has merely maintained her obviousness rejection without responding to the substance of Applicants' traversal arguments.

The M.P.E.P. clearly indicates that "[w]here the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it" (see M.P.E.P. § 707.07). Thus, if the Examiner wishes to maintain her obviousness rejection based on the alleged combination of Murakami and Eda, Applicants respectfully request the Examiner to respond to Applicants' traversal arguments provided in the Amendment filed on July 26, 2005, in accordance with M.P.E.P. § 707.07.

Therefore, Applicants maintain that the Examiner has failed to establish a *prima facie* case of obviousness.

Moreover, Applicants submit that neither Murakami nor Eda, nor any combination thereof, teaches or suggests "*wherein said curved leaf spring contacts said outer peripheral surface of said bearing and substantially a whole intermediate portion of said curved leaf spring except opposite ends portions of said curved leaf spring contacts said inner surface of said support portion*" as recited in claim 1.

As indicated in section B of these detailed comments, Applicants submit that Murakami does not teach or suggest this feature of the claimed invention. Furthermore, Applicants submit that Eda fails to make up the deficiencies of Murakami.

The Examiner attempts to rely on Figures 18A and 18B of Eda to support his allegation. The Examiner, however, is clearly incorrect.

That is, nowhere in these figures (nor anywhere else for that matter) does Eda teach or suggest that the curved leaf spring contacts the outer peripheral surface of the bearing and substantially a whole intermediate portion of the curved leaf spring except opposite ends portions of the curved leaf spring contacts the inner surface of the support portion. Eda does not even teach or suggest a curved leaf spring. Indeed, Eda merely teaches a spiral spring (119) disposed between the biasing member (112) and the bearing ring (114) (see Figure 18B and paragraph [0140] of Eda).

As shown in Figure 18B of Eda, a spiral spring (119) is disposed around a biasing member (112). The spring (119) is only fitted around a portion of the biasing member (112). The spring (119) is also only fitted around a portion of the inner surface the bearing ring (114). Thus, gaps are formed between the biasing member (112) and the spring (119), as well as between the spring (119) and the bearing ring (114). Additional gaps are formed between each concentric layer of the spiral spring (119) (see Eda at Figure 18B). Eda does not teach or suggest this feature.

In contrast, the claimed invention of exemplary claim 1 allows a gap between the curved leaf spring (12) and the inner side (74b) of the support portion (74), and a gap between the curved leaf spring (12) and the rolling bearing (8) to be eliminated. Indeed, the claimed invention of exemplary claim 1 (e.g., as depicted in Figure 4) provides a curved leaf spring (12) that may be fitted along and in contact with the outer peripheral surface of the rolling bearing (8) and substantially a whole intermediate portion of the curved leaf spring except opposite end portions of the curved leaf spring (12) contact the

inner side (74b) of the support portion (74). Thus, the movement of the worm (3) in a direction intersecting the directions of the rotation-axis distance (H) is limited (see Application at page 16, lines 5-11) and the overall size of the worm gear may be made compact (see Application at page 15, lines 17-21).

Thus, Eda fails to make-up the deficiencies of Murakami.

Therefore, Applicants submit that these references, even if combined, would not teach or suggest each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicants submit that claims 1-10 and 14-19, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

Attorney Docket No. K06-165049M/TBS 17
Serial No. 10/743,317
NGB.347

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: January 20, 2006

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FACSIMILE TRANSMISSION

I hereby certify that I am filing this paper via facsimile, to Group Art Unit 3611, at (571) 273-8300, on January 20, 2006.

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